

CHAPTER 5

EXISTING PUBLIC WATER SYSTEM

Existing Facilities

The water system consists of production, distribution, and storage facilities. This system includes three wells, three reservoirs, distribution pipelines, disinfection using sodium hypochlorite, liquid sodium hydroxide for corrosion control and a SCADA (Supervisory Control and Data Acquisition) system.

Production Facilities

LACSD owns three operating wells within the District boundaries. Wells #3A, #4 and #5 are the District's production wells. For information on the San Antonio Groundwater Basin and water quality, see Chapter 4 on page 22.

Well #3 was drilled in August 1978. Over the course of the last few years, Well #3 lacked the desired production levels for the District due to a worn casing. The District completed the installation of Well #3A in December 2010, which is approximately 25 feet from Well #3. The close proximity to Well #3 was designed such that Well #3A could tie directly into the distribution lines through the existing building, saving on additional infrastructure. The installation of well #3A also included the addition of SCADA and a variable frequency drive (VFD). Well #3A is 500' deep, 12" diameter PVC casing and currently produces 430 gpm.

Well #4 was drilled in July 1988. In July 2008, Well #4 was slip-lined and had a variable frequency drive motor (VFD) and SCADA installed. Well #4 currently produces 220 gpm. The District anticipates replacing Well #4 in the near future as it reaches its expected design life (25 years). Unfortunately this site does not offer the same ability to install a new well and use the existing infrastructure to tie into the distribution system as Well #3. A new well site will be required.

Well #5 was completed in July 2007. Well #5 is located across Gonzalez Drive from Creekside Village. The installation of well #5 also included the addition of SCADA and a variable frequency drive (VFD). The well is approximately 1000' deep, 12" diameter stainless steel casing and currently produces 750 gpm.

Storage Reservoirs

Three reservoirs located in the hills west of the District provide storage and pressure for the water distribution system. There is a 200,000-gallon welded steel tank that was constructed in 1958 and refurbished in 1994 by having the interior recoated. It was placed into service as an emergency backup to provide adequate fire flows. Due to the lower high water elevation of the 200,000-gallon tank compared to the other two reservoirs, this tank can only be used by manually operating the valve. This emergency storage tank is operated once a week to maintain the quality of the water.



* water supply well